that Is to say, it is long and not very high. The skull is most like that of *Balaena,,* but the process of the frontal arching over the eye is broader relatively than in *Bcdaena,* and thus approaches *JSalaenoptera.* Nothing is known of the viscera of this "Whale. The whalebone is white, and the animal was first described by Dr. Gray from pieces of " "bone." It is not always that so fortunate a diagnosis of specific or generic difference has been made from a structure which apparently offers so little aid for discrimination,

There is but a single species of the genus which is named *J^eobala&na marc/inata,.*[1]

## SUB-ORDER *2.* ODONTOOETL

The *Odontoceti* have teeth but no whalebone; the blow-hole is single; the skull is not symmetrical; some of the ribs are two-headed.

Fam. 1. Physeteridae.—This family of the Odontocetes may be thus denned:—All or most of the cervical vertebrae are fused together. The costal cartilages are not ossified. In the skull the pterygoids are thick and meet in the middle line ; the syra-physis of the mandible is long. Teeth, more or fewer, are found in both jaws, but those of the mandible are alone functional (? exc. *JToffia).* The pectoral limb is smallish. The throat is grooved by two or four furrows.

This family of Whales is again susceptible of division into the two sub-families—Physeterinae or Sperm Whales and the £iphiinae or Beaked Whales. Professor P. J. van Beneden was strongly against any subdivision of what is here regarded as a perfectly natural family, embracing the Physeters and the Beaked Whales. There are, however, some reasons for the subdivision. The Ziphiinae have a reduced series of teeth, never exceeding two on each mandible, which contrasts with the fully-toothed mandibles of both *Physeter* and *Kogia,** The stomach of the Ziphioids is extraordinarily complicated even for a Cetacean. The small bead of the [1]atter group, which recalls in a curious way that of Mosasauroid reptiles and some Dinosaurs, is in contrast to the

[1] For osteology see Hector, *Trans, New Zeal. 2nst.* vii.,1876, p. 251; and

**Bed&tid,** *'Trans. Zo&l. Soc.* xv. 1901, jx 87.